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The source attribution effect: Demonstrating pernicious disagreement between ideological groups on non-divisive aphorisms

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ABSTRACT

We tested whether mere source attribution is sufficient to cause polarization between groups, even on consensual non-divisive positions. Across four studies (N = 2182), using samples from Germany, the UK, and the USA, agreement with aphorisms was high in the *absence* of source attribution. In contrast, atheists agreed less with brief aphorisms when they were presented as Bible verses (Studies 1 and 2), whereas Christians agreed more (Study 2). Democrats and Republicans (USA) and Labour supporters and Conservative supporters (UK) agreed more with politically non-divisive aphorisms that were presented as originating from a politician belonging to their own party (e.g., Clinton, Trump, Corbyn) than with the same aphorisms when they were presented as originating from a politician belonging to the rival party (Studies 3 and 4). This source attribution effect was not moderated by education, amount of thinking about the aphorisms, identification with the ingroup, trust, dissonance, fear of reproach, or attitude strength. We conclude that source attribution fundamentally interferes with epistemic progress in debate because of the way in which attributions of statements to sources powerfully affects reasoning about their arguments.

1. Introduction

In the present research, we examine whether agreement on uncontroversial, non-partisan issues is reduced by the simple knowledge that they are endorsed by "the other side". There are increasingly distrustful and entrenched divisions between religious and political ideological groups. For example, in the USA, differences in religious ideology are manifested in the lower trust felt toward atheists than other religious groups (e.g., Muslims; Edgell, Gerteis, & Hartmann, 2006). In 2014, atheists and Christians, especially Evangelical Christians, rated each other as the coldest group on a feeling thermometer (Lipka, 2014). There are also remarkable differences in political ideology. Only 9% of US-American married couples consist of Democrat-Republican pairs (Rosenfeld, Reuben, & Maja Falcon, 2015), and the degree of political attitude concordance between spouses exceeds the concordance in personality and physical traits (Alford, Hatemi, Hibbing, Martin, & Eaves, 2011).

The degree of discord between political ideological groups has increased in recent decades (Iyengar & Krupenkin, 2018). For example, in 1960, 33% of Democrats and Republicans viewed their own party members as intelligent and 27% considered the opposing party members as intelligent (averaged across both groups). By 2008, this gap had widened to 62% versus 14%, respectively (Iyengar, Sood, & Lelkes, 2012). Similarly, the proportion of party members who would be somewhat or very unhappy if their children were to marry someone who supports the other party was ten times larger in 2010 than in 1960 (Iyengar et al., 2012). Moreover, the degree of discord is often stronger among more highly educated supporters of both parties, especially on issues related to environmental protection or moral issues, such as abortion and homosexuality (Pew Research Center, 2016). A range of studies suggest that conservatives and liberals are equally biased against each other (Ditto et al., 2017; Frimer, Skitka, & Motyl, 2017), and these divisions are so well-known that it is no longer surprising to see disagreement between these ideological groups on divisive contemporary issues.

However, a fundamental question is whether this disagreement even applies when the opposing group makes *non-divisive* claims to holding the same core values, eliciting disagreement where there should be agreement. If so, this effect would be evidence that mere source attribution is, by itself, a powerful barrier to resolving existing ideological and political differences. This issue is important because shared values are often seen as a bridge that can help to forge agreement. For

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instance, after the attacks on 11.09.2001, the United Nations Secretary General (New York, Sept. 24) argued for the importance of finding "a framework of *shared values and understanding*…" Yet, it could be argued that opposing ideological groups already attempt to reach out through statements affirming shared values, but these pledges fail to elicit shared understanding because people know *who* makes the statements. This potential effect of source attributions on agreement with the same aphorisms is the focus of the present research. Here, we provide the first direct examination of whether source knowledge prevents affirmations of shared values from bridging ideological divisions, focusing on several polarized ideological groups: atheists, Christians, US-Democrats, US-Republicans, supporters of the UK-Conservative and UK-Labour party. Further, we investigate a range of previously unexplored moderators to get a better understanding of the underlying mechanisms of the source attribution effect.

1.1. Group identity and persuasion

Social identity theory (Tajfel & Turner, 1986) and self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) provide a useful theoretical framework to understand disagreement between ideological groups. These theories suggest that ideological divisions between groups are likely to be inflated when group identity is salient. Social identity theory postulates that membership of social groups provides an important basis for social identity and that people are therefore motivated to find ways of distinguishing their own group from the outgroup in ways that reflect well on the ingroup.

The relevance of source attribution to intergroup agreement is illustrated in a study that asked 1000 Jewish pupils to judge whether they agreed with the action of the main character of a short story (Tamarin, 1966). In one condition, pupils were presented with a short passage from the Old Testament book of Joshua. Joshua, a Jewish leader, is accurately described as conquering a city and slaughtering everyone inside it, including children and animals. Sixty percent of the pupils endorsed Joshua's actions. However, when the same passage was said to describe the actions of General Lin in China 3000 years ago, just 7% of the pupils endorsed General Lin's actions. Similarly, Jews and Palestinians agreed less with a peace plan for the Israel-Palestinian conflict when it was attributed to the "other side" (Maoz, Ward, Katz, & Ross, 2002).

A possible mechanism underlying these effects are that ingroup members see each other as similar, and as more different from outgroup members, in accordance with self-categorization theory (Turner et al., 1987). This greater perceived similarity influences trustworthiness and persuasion (Faraji-Rad, Samuelsen, & Warlop, 2015). A related explanation was proposed by Asch (1948): Based on the findings of Lorge and Curtiss (1936), Asch argued that the perceived prestige of authors plays a role in how statements are assessed. This hypothesis was supported by more recent studies of the perceived prestige of leaders, which was operationalized as the leader's charisma: Leaders described with in-group characteristics were evaluated as more charismatic and authentic (Platow, van Knippenberg, Haslam, van Knippenberg, & Spears, 2006; Steffens, Mols, Haslam, & Okimoto, 2016; see also Mols, 2012). At the same time, people may inherently distrust the outgroup sources more (e.g., Yuki, Maddux, Brewer, & Takemura, 2005). Thus, the influence of someone from the ingroup is likely to be higher because ingroup members are perceived as more trustworthy.

This ingroup bias extends to the processing of persuasive messages: Information from ingroup members is more persuasive (Mackie, Gastardo-Conaco, & Skelly, 1992; Mackie, Worth, & Asuncion, 1990; McGarty, Haslam, Hutchinson, & Turner, 1994). For example, drawing on Turner's (1982, 1985) work, Mackie et al. (1990) reasoned that an argument from the ingroup is persuasive "for the very reason that it is seen as reflecting, defining, and informing about social reality for people similar to the recipient" (p. 813). To test this assumption, Mackie et al. asked psychology undergraduate students to read a message advocating abolition of the Scholastic Assessment Test (SAT) exams. Participants were either informed that the message came from an ingroup member (a delegate from their own university) or an outgroup (another university). The message arguments were pretested to be either weak or strong. Participants were more persuaded when the content was strong as opposed to weak, but only when the message was said to come from an ingroup member. When the message was said to come from an outgroup member, participants were equally unpersuaded by strong and weak messages, showing that the effect of argument strength is moderated by source attribution.

However, people are blind to this influence (Cohen, 2003), and this effect occurs only when group membership is considered to be relevant for the attitude issue (Wyer, 2010). Drawing on self-categorization theory (Turner et al., 1987) and the work of Mackie et al. (1992, 1990), Wyer (2010) manipulated whether the attitude issue was relevant to group membership. For example, in Study 1, conducted in the USA, Wyer presented members of the Democratic and Republican parties with arguments on issues that were either relevant to their party affiliation (legalization of euthanasia) or irrelevant (increasing credit requirements for undergraduate students). The arguments were presented as originating either from the ingroup or from the outgroup, and as either in favor or opposing the attitude issue. When the topic was relevant to the source (euthanasia), the origin had a strong effect: When the arguments were pro-euthanasia, participants supported euthanasia more when the arguments came from an ingroup than outgroup member. Similarly, when the arguments were against euthanasia, participants opposed euthanasia more when arguments came from an ingroup than outgroup member. Importantly, when the topic was irrelevant to the source (credit requirements), the effects were weaker or non-existent.

What remains unclear is whether value-laden aphorisms would be judged in a similar way to the relevant or irrelevant arguments used by Wyer (2010). This is important because much of the most striking content of political speeches consists of truistic, value laden assertions rather than arguments. Examples are the political slogans used during the most recent election campaigns of the US-American presidential candidate Hillary Clinton ("Stronger together"; in 2016), the British Prime Minister Theresa May ("Strong and stable leadership"; 2017), or the German Chancellor Angela Merkel ("For a Germany where we live well and happy"; 2017). None of these slogans contains any substantive argument. The endpoints of the slogans are uncontroversial truisms: Most if not all parties would share the aims of Americans being "stronger together", providing the UK with "strong and stable leadership", or enabling German citizens to "live well and happy". Nevertheless, the arguments are linked to different politicians or political parties, and the implications of attaching the same aphoristic statements to opposing parties have not been examined. We expect that even aphorisms or truisms can be subject to strong ingroup biases, effectively negating their ability to bridge divisions between groups.

Overall, then, the effects of source attribution on persuasiveness have been shown in a variety of ways in relation to controversial topics (e.g., military aggression, potentially complex peace settlements between opposing sides) with polarizing content (e.g., Cohen, 2003; Mackie et al., 1990; Maoz et al., 2002) or criticisms of the ingroup (e.g., Hornsey & Esposo, 2009). Effects such as these do not always replicate across context, sample type, and time (e.g., Hanel & Vione, 2016; Henrich, Heine, & Norenzayan, 2010), and it is important to identify boundary conditions. Here, we probe whether the effect of group membership is so powerful that it even affects the endorsement of non-divisive aphorisms that reflect shared values. Specifically, we investigate whether source attributions affect responses even to statements that could be bridges for rapprochement between ideological groups: uncontroversial aphorisms that are endorsed in both groups.

Researching this issue is important for theoretical and practical reasons. From a theoretical perspective, evidence of a source attribution effect on the extent of agreement with consensual aphorisms would

point to the need for potential different mediating mechanisms. In previous paradigms, rejecting a message calling for action would be easier when it comes from an outgroup member rather than an ingroup member because an outgroup member would be much less likely to monitor whether the action takes place (see the literature on ingroup favoritism, Balliet, Wu, & De Dreu, 2014). In contrast, consensual aphorisms are linked to common values and interests. If adding an outgroup source attribution to such statements still reduces agreement, the evidence would call for a broader theoretical perspective on the impact of sources. It would be important to also consider varied mechanisms through which the attempted introduction of a framework of shared values between groups yields an impact (e.g., increased processing, identity protection).

From a practical perspective, it is important to seek ways of bridging major contemporary societal divisions along religious (e.g., atheists vs Christians) and political lines (Democrats vs Republicans and Labour supporters vs Conservative supporters). Not only are there acrimonious debates across these group divides (Dawkins, 2006; Iyengar et al., 2012); people are inclined to infer greater differences in values between groups than there actually are (Hanel, 2016; Hanel, Maio, & Manstead, 2018; see also Westfall, Boven, Chambers, & Judd, 2015). Actual differences between conservatives and liberals or religious and non-religious people are small for several important contemporary topics. For example, the quality and frequency of moral behaviors do not differ between religious and non-religious participants (Hofmann, Wisneski, Brandt, & Skitka, 2014). Another large-scale study found a high degree of consensus among demographic groups, including Democrats and Republicans, regarding wealth redistribution: All groups preferred a more equal distribution of wealth in the USA, compared to the status quo (Norton & Ariely, 2011). If people are resistant to these shared values and goals simply because they are advocated by the outgroup, then it would become important to inform people about this bias and to study ways to address it.

1.2. Overview of the present studies

Across four studies, we investigated a wide range of different extreme religious and political groups. We recruited atheists as participants in Study 1, atheists and Christians in Study 2, US-Democrats and US-Republicans in Study 3, and British citizens who supported either the Conservative or Labour party to varying degrees in Study 4. Participants in all studies were asked to evaluate aphorisms: Bible verses and quotes from Greek philosophers in Studies 1 and 2, quotes from leading politicians of the Democratic and Republican party in Study 3, and value-laden statements of important values derived from the Portrait Value Questionnaire (Schwartz et al., 2001). In Studies 2–4, we tested whether the two groups disagreed more when the origin of each statement was presented, but only weakly or negligibly when the aphorisms were unattributed. Thus, unlike previous studies (e.g., Platow et al., 2006; Tamarin, 1966), we also tested whether aphorisms attributed to an outgroup would be disliked more than in a condition when the same aphorisms were unattributed. We explored a range of potential moderators that were mainly unexplored in previous research, including identification with the ingroup (Study 1), amount of elaboration (Studies 1 and 3), level of education (Study 3), strength of political preference (Studies 3 and 4), discomfort about disagreeing with the ingroup, fear of reproach from the ingroup, and attitude strength (Study 4). We provide a brief rationale for each moderator at the beginning of each study. The data and *R* coding for all studies can be found at https://osf.io/csfmd/.

2. Study 1

The aim of Study 1 was to test whether US- and UK-based atheists would agree less with brief aphorisms when they were presented as originating from a Christian source (Bible) or a Jewish source (Tanakh, the holy book of Jews). The considerable overlap in content between the Tanakh and the Old Testament allowed us to veridically present aphorisms from one source as coming from the other source. This paradigm allowed us to test whether atheists devaluate religious sources per se or simply sources from a specific, disliked religious group (i.e., Christians) – and thereby help to determine the outgroup for the following study. We expected atheists to have a generally negative view of the Bible, based on the popularity of recent books belonging to the so-called 'new Atheism' wave that attacks religion, especially Christianity and the Bible (e.g., Dawkins, 2006; Harris, 2006).

We also tested whether this effect would be stronger for atheists who identify strongly with being an atheist, and whether the effect is more apparent under spontaneous or deliberate processing conditions. We operationalized the latter by either presenting aphorisms and source attribution together (i.e., spontaneous condition) or allowing the participants to think first about each aphorism before presenting its (apparent) origin (i.e., deliberate condition). We reasoned in line with previous research (Horcajo, Petty, & Briñol, 2010) that presenting the aphorism first allows participants to process the message more extensively, while presenting the (apparent) origin together reduces depth of processing or elaboration.

2.1. Method

2.1.1. Design and participants

We used a 2 × 2 between-subject design with source attribution (Bible vs Tanakh) and deliberation (spontaneous vs deliberate) as factors. A fifth condition was added as a control condition, in which the aphorisms were presented without attribution.

One hundred eighty-four participants completed the survey. Twenty-two participants were excluded because they indicated that they either believed in God (n = 1), were unsure whether they believed in God (11), or did not care (10). These exclusions were necessary because it was not clear whether these participants would or would not have favorable views toward the Bible. The final sample of 162 participants had a mean age of 39.20 years (SD = 13.51), and included 55 women (34.20%, one participant did not respond to the gender item), and 80 participants who had at least graduated from high school, while the remaining 82 had a lower educational level. We asked around 20 moderators of mainly British and American atheist Facebook groups and pages to distribute a brief advertisement for this study, or we posted the advertisement on their pages ourselves. All participants completed the survey online and were not compensated. A sensitivity analysis conducted with G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) showed that our sample was sufficient to detect small-to-medium effects of $f \geq 0.22$ with a power of 0.80 for a between-subjects ANOVA testing the interaction between source attribution and deliberation. Our sample is also sufficient to detect small-to-medium effects of $f \geq 0.22$ within a one-way analysis with source attribution as the factor (Bible vs Tanakh vs none), again with a power of 0.80.

2.1.2. Material and procedure

Participants were told that they would be participating in a study about personal beliefs and identity. Next, participants were randomly allocated to one of the five conditions, which presented the same eight Bible/Tanakh aphorisms (i.e., verses) and eight quotes from Greek philosophers. Participants rated how much they agreed with 16 aphorisms on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The quotes from the Greek philosophers were added to avoid the possibility that participants disagreed with the aphorisms only because they came from a religious text, without reading them properly. These quotes were always labeled as being from Greek philosophers. In the experimental conditions, aphorisms were either labeled as originating from the Bible or the Tanakh. We reported the book, the chapter, and the verse number of each aphorism, which is a unique and (mostly) universal identifier for Bible and Tanakh verses. Examples include, "It is better to heed the rebuke of a wise person

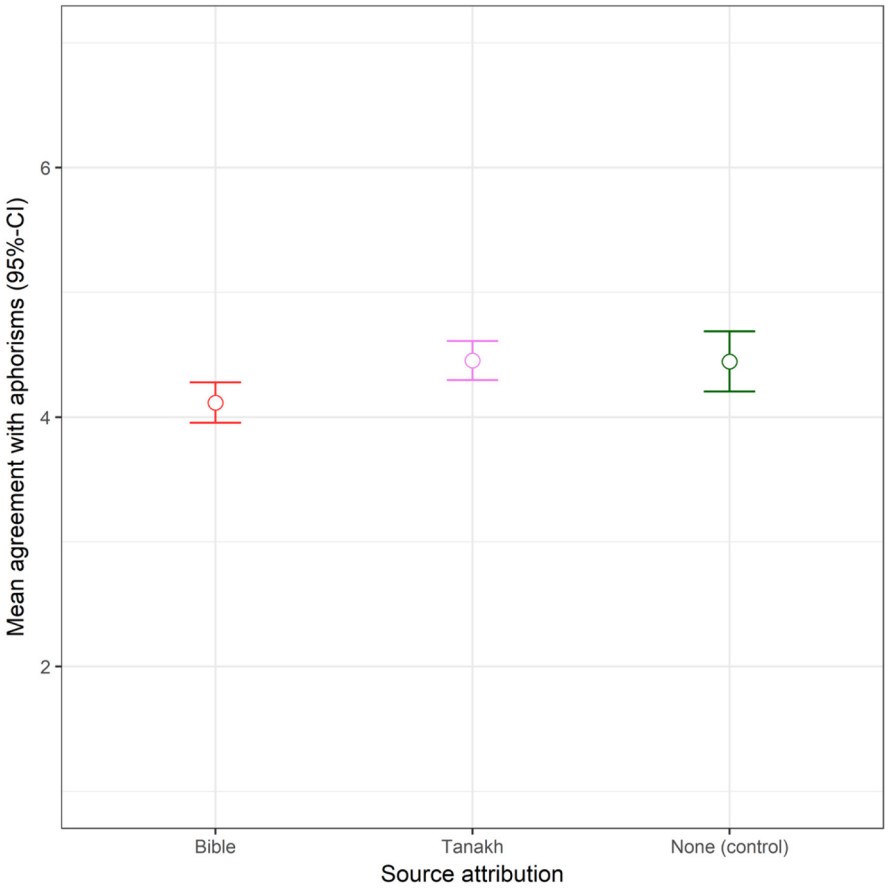

Fig. 1. Mean agreement with Bible/Tanakh aphorisms as a function of source attribution (Study 1).
Note. The response scale ranged from 1 (strongly disagree) to 7 (strongly agree).

than to listen to the song of fools (The Bible, Ecclesiastes 7:5)" (or "The Tanakh, Qoheleth 7.5" in the Tanakh condition) and "No evil can happen to a good man, either in life or after death (Greek philosopher, Plato, 427–347)."

To test whether disagreement with the aphorisms labeled as originating from the Bible or Tanakh would be reduced or enhanced if the source attribution was given either before or after the aphorism, either the source attribution (e.g., "The Bible, Ecclesiastes 7:5") was presented for 3 s before the aphorism and response scale appeared (spontaneous condition), or the aphorism was presented first and then the attribution and the response scale appeared after 5 s (deliberate condition). In the control condition, only the aphorisms with the response scale were presented, without attribution or delay.

Next, all participants completed a 14-item in-group identification scale (Leach et al., 2008), which measures five factors of ingroup identification: solidarity (e.g., "I feel committed to atheists", $\alpha = 0.52$), satisfaction ("It is pleasant to be an atheist", $\alpha = 0.35$), centrality (e.g., "The fact that I am an atheist is an important part of my identity", $\alpha = 0.73$), individual self-stereotyping (e.g., "I am similar to the average atheistic person", $\alpha = 0.78$), and ingroup homogeneity (e.g., "Atheists are very similar to each other", $\alpha = 0.88$). Responses were made on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The overall consistency of the 14-item scale was $\alpha = 0.77$. Then participants were asked about how often they engage in religious behaviors (e.g., praying, working in an honorary capacity in religious communities), whether they are member of a religious community, and whether they believed in God.

2.2. Data analysis

As a measure of effect size, we report Cohen's U3 because of the intuitive ease with which effect size can be interpreted when comparing two groups. U3 shows the percentage of people from one group scoring higher than the mean of the other group. The average U3 in the published social psychological literature is 66.6% (transformed from $r = 0.21$; Richard, Bond Jr., & Stokes-Zoota, 2003), or 58.7% when taking publication bias into account (cf. Open Science Collaboration, 2015). As U3 cannot be used for interactions in ANOVA designs, in these cases we report the generalized eta square $\hat{\eta}_G^2$, computed with the ez package in R (Lawrence, 2015), because of its comparability across many research designs (Olejnik & Algina, 2003). Finally, we also report Cohen's *d* because of its widespread use.

2.3. Results

First, we conducted a two-way ANOVA with source attribution (Bible vs Tanakh) and deliberation (spontaneous vs deliberate) as the between-subjects factors and agreement with the religious verses as dependent variable. Although the interaction was not significant, $F(1, 126) = 0.70$, $p = .41$, $\hat{\eta}_G^2 = 0.01$, the main effect of source attribution was, $F(1, 126) = 7.78$, $p = .006$, $\hat{\eta}_G^2 = 0.06$, $d = 0.52$, Cohen's U3 = 70, as was the main effect of deliberation, $F(1, 126) = 4.45$, $p = .037$, $\hat{\eta}_G^2 = 0.03$, $d = 0.41$, U3 = 66. Participants agreed more with the aphorisms when they were presented as originating from the Tanakh ($M = 4.45$, $SD = 0.65$) than from the Bible ($M = 4.12$, $SD = 0.64$). Unexpectedly, participants agreed more when the source attribution was presented before the aphorism ($M = 4.41$, $SD = 0.65$), than when the source attribution was presented after the aphorism ($M = 4.14$, $SD = 0.65$).

In a next step, we compared the agreement with Bible and Tanakh aphorisms, averaged across the deliberation conditions, with the

control condition. The one-way ANOVA was significant, $F(1, 160) = 7.46$, $p = .007$, $\hat{\eta}^2_G = 0.04$. Post-hoc tests using Tukey's HSD revealed that participants in the control condition agreed marginally more ($M = 4.45$, $SD = 0.67$) with the aphorisms than did participants in the Bible conditions, $p = .054$, $d = 0.51$, U3 = 69. The difference between the control condition and the Tanakh condition was non-significant, $p = .998$ (see Fig. 1). Additionally, we tested whether controlling for agreement with the quotes of the Greek philosophers would change the pattern of result (i.e., to control for response biases). This was not the case: The one-way ANCOVA with the three between-subjects conditions (Bible vs Tanakh vs control) remained significant, $F(2, 158) = 9.26$, $p < .001$.

Finally, we tested for potential moderators in a series of regression analyses, with the potential moderator (identity or education) included as the continuous variable, and source attribution as a between-subjects factor (the Bible and Tanakh conditions were both tested against the control condition). Thus, we computed 7 two-way interactions between the moderators (five ingroup factors, overall ingroup factor, and education) and source attribution (Bible vs control and Tanakh vs control). Regarding the results for the ingroup identity scores, none of the 12 two-way interactions (Leach et al., 2008) was significant, either for the overall 14-item version or for the five subscales ($Bs < |0.25|$, $ps > .07$). In contrast, the interaction of level of education with Bible vs control was significant ($B = -0.40$, $SE = 0.15$, $p = .007$), as was the interaction of level of education with Tanakh vs control ($B = -0.49$, $SE = 0.15$, $p = .002$). A comparison of the lower with the higher educated participants (median split) revealed that lower educated participants agreed less with the aphorisms when they were labeled as Bible ($M = 4.03$, $SD = 0.63$) or Tanakh aphorisms ($M = 4.31$, $SD = 0.68$) than in the control condition ($M = 4.86$, $SD = 0.46$), whereas this effect was not observed for the higher educated participants ($M = 4.23$, $SD = 0.64$ for Bible, $M = 4.61$, $SD = 0.58$ for Tanakh, and $M = 4.38$, $SD = 0.65$ for control). This suggests that lower educated participants were more strongly influenced by the origins of the statement than were higher educated participants.

2.4. Discussion

Atheists agreed less with aphorisms when they were presented as coming from the Bible than when they were unattributed. However, this effect did not occur when the aphorisms were attributed to the Tanakh. This pattern of findings shows that British and American atheists have a specific dislike of the Bible, and may reflect the fact that Jews are not considered by atheists to be an especially relevant outgroup. This explanation is supported by examination of the posts of the Facebook groups from which we recruited our participants. A high proportion of posts ridiculed the Bible or pointed out (apparent) contradictions within the Bible, but virtually none directly attacked the Jewish religion or presented them as a despised outgroup. However, we suspect that a replication of this study conducted among Israeli atheists would reveal a similar effect for the Tanakh aphorisms, given the greater relevance of the outgroup.

Apart from level of education, none of the putative moderators had a significant effect. Extent of deliberation and strength of atheist identity failed to moderate whether atheists agreed with Bible aphorisms less when they were labeled as such. It is worth noting that the first of these results stands in contrast to previous research (e.g. Horcajo et al., 2010), where it was found that whether the source attribution preceded or followed a message had a significant effect.

3. Study 2

We aimed to replicate and extend the findings of Study 1 by recruiting both atheists and Christians as participants and by using a broader range of aphorisms. Each group of participants rated 20 aphorisms, 12 from the Bible and 8 from Greek philosophers. They were presented either as from the Bible or without attribution. We assumed that atheists and Christians would agree in their ratings when the aphorisms were not labeled as Bible aphorisms but that they would disagree when they were labeled as originating from the Bible.

3.1. Method

3.1.1. Design and participants

A 2 (Worldview: atheist vs Christian) × 2 (Source attribution: Bible vs no attribution) design was used. Five-hundred fifty-four atheists ($M_{age} = 29.77$, $SD = 11.42$, 60.5% women) and 220 Christian participants ($M_{age} = 42.99$, $SD = 19.91$, 21.9% women) completed the survey. Seventy-two participants who reported that they did not care about the existence of God (i.e., agnostics) were excluded, because it was unclear whether or not they would have favorable views toward the Bible. Of the excluded agnostics, 71 were from the atheist sample,[1] and one was from the Christian sample. Additionally, we excluded 25 participants from the atheist sample because they reported believing in God, and five participants from the Christian sample because they reported not believing in God. We excluded these 30 participants from the analysis, rather than switching them to the other group, because their ideological position was ambiguous: Their public commitment (see below) was at odds with responses given in the survey.

Atheist participants were recruited via Facebook and completed the survey online. We asked a moderator of a large German-speaking Facebook group called “Atheism” to distribute an advertisement for the study, along with a link to an online survey. To recruit Christian participants, we visited several Church services or communal meetings of Christian communities and distributed a paper version of the survey, along with other measures unrelated to the present study. Christian participants either completed the survey immediately or completed it at home and mailed it to the researchers. Participants were not compensated. A sensitivity analysis showed that our sample was sufficient to detect small effects of $f \geq 0.10$ with a power of 0.80 for a 2 (Worldview: atheist vs Christian) × 2 (Source attribution: Bible vs no attribution) design.

3.1.2. Material and procedure

To assess whether labeling aphorisms as originating from the Bible increases the divide between atheists and Christians, we selected 12 Bible aphorisms from the Old Testament and eight quotes from Greek philosophers, which were labeled as coming from the Bible in the Bible origin condition. For eight of the Bible aphorisms, we expected there to be consensual agreement (e.g., “Whoever loves money never has enough; whoever loves wealth is never satisfied with their income” Ecc 5:9, or “A person finds joy in giving an apt reply – and how good is a timely word!” Prov 15:23); for the remaining four aphorisms, we expected there to be consensual disagreement (e.g., “You have set free a man I had determined should die. Therefore it is your life for his life, your people for his people.” 1 Kings 20:42). Criteria for selecting the Bible verses were (1) they should not be well-known and (2) they should not contain obvious Biblical terms, such as “God” or “Abraham.” All the Bible aphorisms were taken from a German ecumenical Bible translation from 1985, with both Catholics and Protestants agreeing on the content. The eight quotes from Greek philosophers were taken from Knischek (2009). Examples are “Judgement, not passion should prevail,” and “Immoderate desire is the mark of a child, not a man.” In the Bible origin condition, all 20 aphorisms were labeled as originating from the Bible, using the conventional way of citing Bible aphorisms by reference to the book, chapter, and verse. The eight quotes from Greek

[1] We tested whether the source attribution did have an effect for the 71 participants from the atheist sample who identified themselves as agnostics, to test whether the exclusion was justified. Agnostics did not agree more or less with aphorisms labeled as Bible verses than with unlabeled aphorisms, $t(68.24) = 0.35$, $p = 73$.

Table 1
Mean (*SD* in parentheses) agreement with aphorisms as a function of worldview, stimulus type, and source attribution (Study 2).

		Source Attribution							
		Bible		No Attrib					
Worldview	Stimuli	*M*	*SD*	*M*	*SD*	*df*	*t*	*d*	U3
Atheist	Consensually agreed	4.47	1.03	4.85	0.87	532.00	−4.74***	−0.40	34
	Consensually disagreed	1.55	0.80	1.58	0.92	544.12	−0.46	−0.04	48
	Quotes from philosophers	3.63	0.80	3.59	0.81	551.86	0.58	0.05	52
	All aphorisms	3.56	0.72	3.70	0.67	547.35	−2.44**	−0.21	42
Christian	Consensually agreed	5.74	0.64	5.36	0.85	193.85	3.70***	0.51	69
	Consensually disagreed	2.40	1.38	2.23	1.31	216.81	0.90	0.12	55
	Quotes from philosophers	4.41	0.85	3.90	0.72	215.77	4.77***	0.64	74
	All aphorisms	4.59	0.69	4.19	0.64	218.00	4.50***	0.64	74

Note. Higher means reflect greater agreement on a 1–7 scale. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

philosophers were said to be from the Old Testament, where similar aphorisms can be found (e.g., book of Kohelet). Participants indicated how much they agreed with each of the aphorisms, on a 7-point scale ranging from 1 (completely disagree) to 7 (completely agree) (in the no attribution condition, the term "Bible verses" was replaced by "statement").[2] To check their belief system (religious, atheist, and agnostic), participants were asked whether they believed in the existence of God (yes, no, or I don't care).

3.2. Results

We tested whether participants agreed more with the eight Bible aphorisms for which we anticipated consensual agreement than with the four Bible aphorisms for which we anticipated consensual disagreement. This was clearly the case both for atheists and Christians (*ds* > 2, *ps* < .0001; see Table 1 for descriptive statistics). Next, we computed a series of two-way ANOVAs, with worldview (atheist vs Christian) and source attribution (Bible vs no attribution) as factors. This breakdown was justified by a significant three-way interaction in a 2 (worldview) × 2 (source attribution) × 3 (type of stimuli: consensually agreed Bible aphorisms, consensually disagreed Bible aphorisms, and aphorisms from Greek philosophers) ANOVA, with repeated measures on the last factor, $F(2, 1536) = 6.35$, $p = .004$.

We conducted four two-way ANOVAs, one for each of four dependent variables: all aphorisms combined, consensually disagreed Bible aphorisms, consensually agreed Bible aphorisms, and aphorisms from Greek philosophers (see Table 1 for descriptive statistics). Analysis of all aphorisms combined revealed a significant interaction, $F(1, 762) = 23.11$, $p < .001$, $\hat{\eta}_G^2 = 0.03$, a significant main effect of worldview, $F(1, 762) = 193.53$, $p < .001$, $\hat{\eta}_G^2 = 0.20$, but no main effect of source attribution, $F(1, 762) = 0.03$, $p = .86$, $\hat{\eta}_G^2 < 0.01$. As expected, the difference in agreement between atheists and Christians was larger across all 20 aphorisms when they were labeled as originating from the Bible, U3 = 94, than when they were unattributed, U3 = 77 (see Fig. 2). In the Bible origin condition, 94% of Christians scored higher than the average atheist. Controlling for age and gender did not affect this pattern of results.

Further comparisons revealed that the predicted effect applied to both atheists and Christians (see Table 1). That is, when atheists were told that the 12 Bible aphorisms and 8 quotes originated from the Bible, they endorsed them less strongly, whereas their Christian counterparts endorsed them more strongly.

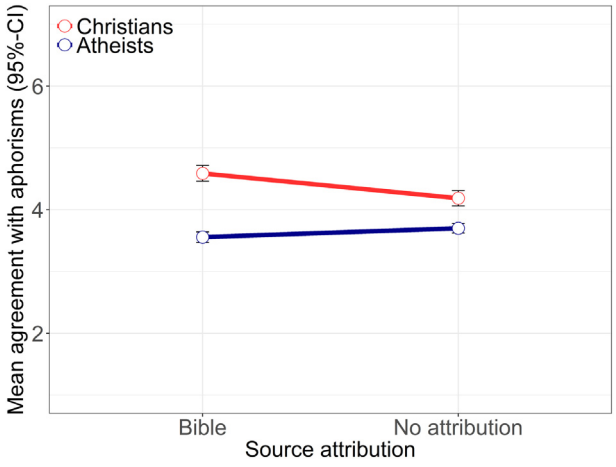

Fig. 2. Mean agreement with aphorisms for atheists and Christians as a function of source attribution (Study 2).
Note. The response scale ranged from 1 (completely disagree) to 7 (completely agree).

However, this effect was not found for the Bible aphorisms that elicited consensual disagreement. Analysis of the consensually disagreed Bible aphorisms revealed only a significant main effect of worldview, $F(1, 762) = 83.97$, $p < .001$, $\hat{\eta}_G^2 = 0.10$, reflecting the fact that Christians disagreed less with these aphorisms than did their atheist counterparts, regardless of source attribution. Both the main effect of source attribution, $F(1, 762) = 0.10$, $p = .75$, $\hat{\eta}_G^2 = 0.001$, and the interaction, $F(1, 762) = 1.43$, $p = .23$, $\hat{\eta}_G^2 = 0.002$, were non-significant. More relevant to our follow up of Study 1, analysis of the consensually agreed Bible aphorisms revealed the predicted interaction, $F(1, 763) = 27.88$, $p < .001$, $\hat{\eta}_G^2 = 0.04$, together with significant main effects of worldview, $F(1, 763) = 161.37$, $p < .001$, $\hat{\eta}_G^2 = 0.17$, and source attribution, $F(1, 763) = 6.34$, $p = .01$, $\hat{\eta}_G^2 = 0.01$. Analysis of the quotes from Greek philosophers revealed a significant interaction, $F(1, 762) = 13.25$, $p < .001$, $\hat{\eta}_G^2 = 0.02$, a significant main effect of worldview, $F(1, 762) = 74.53$, $p < .001$, $\hat{\eta}_G^2 = 0.09$, and a significant main effect of source attribution, $F(1, 762) = 9.01$, $p < .001$, $\hat{\eta}_G^2 = 0.01$.

3.3. Discussion

As predicted, we found that both atheists and Christians were influenced by labeling aphorisms as originating from the Bible. Consensually agreed aphorisms labeled as originating from the Bible elicited less agreement from atheists and more agreement from Christians than when they were unattributed. The fact that this effect was also found for aphorisms from Greek philosophers indicates that the *actual* origin of the aphorisms did not matter.

[2] In both samples, seven items assessing attitudes toward Christianity (Maltby & Lewis, 1997) and religious behavior (e.g., frequency of praying) were subsequently measured as "manipulation checks" (*ps* < .001) but not further analyzed because Atheists revealed a strong floor effect. Additionally, the questionnaire presented to the Christian sample contained several other measures, which were all presented after the scales relevant here by researchers who were not part of this project.

4. Study 3

In Study 3, we examined whether similar results would be found when Democrats and Republicans are asked to evaluate eight quotes from Democratic politicians and eight quotes from Republican politicians. These quotes were either correctly attributed to their original source, incorrectly attributed to a politician from the other party, or unlabeled. We expected that Democratic and Republican respondents would differ strongly in their agreement with the quotes when they were labeled as originating from one party or the other, but not when the quotes were unlabeled.

We also manipulated the extent to which the respondents thought about the quotes by varying the amount of time participants were given to respond. Moreover, we included measures of education and strength of political preference as potential moderators. Previous research (Mackie et al., 1992) did not find effects of these moderators, but they were included here for exploratory reasons and because of the importance of replicating null findings.

4.1. Method

4.1.1. Design and participants

We used a between-subjects design, with party affiliation (Democrat vs Republican, continuous variable), source attribution (correctly labeled vs incorrectly labeled vs unlabeled), and elaboration (low vs high) as the factors. Participants were randomly allocated to source attribution and elaboration. Six hundred twenty-five participants who a priori identified themselves as either liberals or conservatives were recruited through the online platform Mturk. Two participants were excluded after failing both attention checks, leaving 623 participants (51.40% women). The mean age of the sample was 39.66 years (SD = 12.62), and 321 participants (51.50%) reported their educational level as graduate or above. As in all of our studies, data were analyzed only after data collection was completed. A sensitivity analysis showed that our sample was sufficient to detect small effects of $f \geq 0.11$ with a power of 0.80.

4.1.2. Materials and procedure

Participants were told that they would be asked to rate the extent of their agreement or disagreement with each of 16 aphorisms. These ratings were made on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The aphorisms were from well-known members of the Democratic party, including four statements from Hillary Clinton, and from well-known members of the Republican party, including four statements from Donald Trump. The aphorisms were selected from various internet sources (e.g., brainyquote.com) and were chosen because their content was not self-evidently related a specific party or an individual politician. Example statements include “American politics is always an open competition” (Hillary Clinton) and “Our roads and bridges are falling apart, our airports are in Third World condition, and forty-three million Americans are on food stamps” (Donald Trump). For the incorrectly labeled statement condition, we labeled a statement from a Democratic politician as being from a Republican politician, and vice versa. To avoid participants responding in an unthinking fashion, the aphorisms were presented in an alternating order with respect to their (ostensible) political party origin. In the unlabeled condition, the aphorisms were not attributed to any source.

To encourage high elaboration, participants were instructed to “think carefully about each statement, about its meaning, and relevance for American politics.” We also suppressed the appearance of the “next page” button by 5 s. In the low elaboration condition, participants were asked to “answer as fast and accurately as possible.” Finally, the instruction given at the top of the screen for each item reminded the participants to “think carefully” or “respond quickly,” as appropriate.

Next, participants reported their age, gender, and educational level. We used responses to the latter question to classify participants into two groups. The lower educated group had an *intermediate* or *post high school* diploma, or less, whereas the higher educated group had a college degree or higher. Political ideology was measured with four items. The first was “When it comes to politics, do you usually think of yourself as liberal, moderate, conservative, or something else?” and is often used to measure political ideology (e.g., Iyer, Koleva, Graham, Ditto, & Haidt, 2012). Responses were selected from 1 (very liberal) to 7 (very conservative), with four additional response alternatives which were not included in the calculations described below: 8 (don't know), 9 (Not political), 10 (Libertarian), and 11 (other). The second item was “Which party do you feel closer to?” Responses were given on a slider measure ranging from 0 (Democratic party) to 100 (Republican party). The third and fourth items were “How happy would you be if Hillary Clinton became president?” and “How happy would you be if Donald Trump became president?” The last two items were measured on 7-point scales ranging from 1 (extremely unhappy) to 7 (extremely happy). The four items measuring political ideology were combined ($\alpha = 0.95$) by standardizing and summing them. More extreme negative values indicated support for the Democratic Party and Hillary Clinton, while more extreme positive values indicated support for the Republican Party and Donald Trump.

Finally, participants were debriefed and thanked. On average, participants took six and a half minutes to complete the survey and were compensated with US$0.70. This study was conducted in the week prior to the 2016 US elections, on November 2nd and 3rd.

4.2. Results

Of the four possible DVs – aphorisms from Democratic candidates, aphorisms from Republican candidates, aphorisms from Clinton, and aphorisms from Trump – we report the results for the aphorisms from Democratic and Republican candidates. The pattern of results for the aphorisms from Clinton and Trump were the same (see Table S1 in the Supplemental materials which replicates Table 2, see below), and the four aphorisms from Clinton and Trump, respectively, are merely a subset of the quotes from the Democratic and Republican candidates, respectively.

We initially examined responses to aphorisms from the Democratic candidates in a pair of regression analyses and responses to aphorisms from the Republican candidates in another pair of regression analyses. The predictor variables in both analyses were source attribution (categorical) and political ideology (continuous). A third predictor variable was elaboration in one of the analyses, and education in the other analysis. Neither elaboration nor education yielded significant main

Table 2
Summary of regression analysis with aphorisms from Democratic and Republican politicians (Study 3).

	Aphorisms from Democrats		Aphorisms from Republicans	
Predictor variable	*B*	*SE B*	*B*	*SE B*
SA (Correct vs no attribution)	−0.10	0.08	−0.16*	0.07
SA (Incorrect vs no attribution)	−0.17*	0.08	−0.03	0.07
Political Ideology (PI)	0.16**	0.06	0.20***	0.06
SA (Correct vs no attribution) × PI	−0.72***	0.08	0.35***	0.08
SA (Incorrect vs no attribution) × PI	0.43***	0.08	−0.86***	0.08
Adjusted R^2		0.24***		0.27***

Note. SA: Source attribution (dummy coded).
* $p < .05$.
** $p < .01$.
*** $p < .001$.

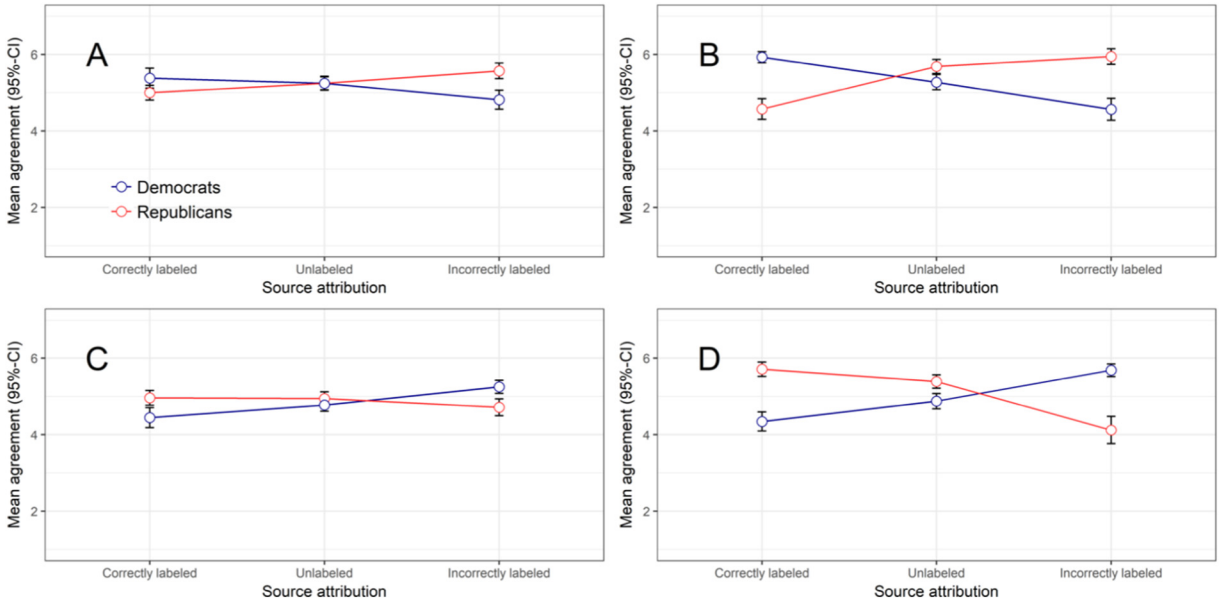

Fig. 3. Mean agreement with aphorisms by Democratic (panels A and B) and Republican (C and D) politicians, depending on source attribution, political ideology, and strength of participants' support for their own party (panels A and C shows results for weaker supporters; panels B and D shows results for stronger supporters; Study 3).
Note. The response scale ranged from 1 (strongly disagree) to 7 (strongly agree).

effects or interactions (see Tables S2 and S3).[3] Therefore, for each dependent variable we computed a regression analysis in which source attribution, ideology, and their interaction were the predictors. Main effects of political ideology in each analysis indicated that Republicans agreed with the aphorisms more than Democrats did. More importantly, there were reliable two-way interactions (see Table 2). When aphorisms from Democratic politicians were correctly attributed, Democrats agreed with them more than when they were not attributed ($B = -0.72$). In contrast, when the aphorisms were incorrectly attributed to Republican politicians, Democrats agreed with them less than Republicans ($B = 0.43$). The reverse pattern of results was found for aphorisms from Republican candidates (see Table 2). To illustrate this effect graphically, Democrats and Republicans were divided into weaker and stronger supporters of their political party and strength of agreement with the aphorisms was plotted as a function of source attribution (see Fig. 3). This analysis clearly shows that the effect of source attribution was stronger among strong party supporters.

4.3. Discussion

Study 3 provided support for the postulated interaction between party affiliation and source attribution. However, while Studies 1 and 2 used general value-laden aphorisms, the aphorisms used in Study 3 were rather policy-relevant rather than value-laden aphorisms. We therefore ran a further study to test whether the effects of value-laden aphorisms found in Studies 1 and 2 would be replicated in a political context.

5. Study 4

In Study 4, we examined whether the same pattern of results as in Study 3 would be found when supporters of the British Conservative party and the British Labour party were asked to evaluate ten consensual aphorisms. These aphorisms were attributed to Theresa May, the leader of the Conservative Party, to Jeremy Corbyn, the leader of the Labour Party, or unattributed. As in Study 3, we expected that Conservative-supporting and Labour-supporting respondents would differ strongly in their agreement with the aphorisms labeled as originating from one party or the other, but not when the aphorisms were unlabeled.

We also took the opportunity to include a range of new moderators to explore the mechanism underlying this effect. Specifically, we investigated whether the effect would be stronger among those who (1) had greater trust in the leadership of their own party, (2) feared reproach from ingroup members for dissent, (3) felt more discomfort about disagreeing, (4) had a tendency to turn to authorities when uncertain about their beliefs, and (5) had stronger attitudes about British politics. We expected that the source attribution effect would be stronger for people who place higher trust in their leadership, because previous research showed that trust in leadership is related to belief in information provided by the leader and commitments to decisions (Dirks & Ferrin, 2002). We further expected that the source attribution effect would be stronger for people who are afraid of reproach from ingroup members, because being excluded or ostracized is associated with a range of negative emotions (Donate et al., 2017). For the same reason, we expected the effect to be stronger for people who feel discomfort about disagreeing: disagreement might lead to reproach. We expected that people who are uncertain about their beliefs would more easily turn to authorities and thus show a stronger source attribution effect because ambiguity intolerance is positively related to conformity-related constructs, such as dogmatism and rigidity (Mac Donald, 1970). Finally, we expected that attitude strength would moderate the effect, because people with a stronger attitude toward politics are more involved in politics (Scheufele, Shanahan, & Kim, 2002) and should therefore have stronger opinions about statements ostensibly made by politicians.

5.1. Method

5.1.1. Design and participants

We used a between-subjects design, with party affiliation (Conservative vs Labour, continuous variable) and source attribution

[3] One of the four two-way interaction for elaboration was significant: elaboration interacted with source attribution (incorrect vs none) at $p = .047$ for the aphorisms from Democrats. However, because the same two-way interaction for aphorisms from Republicans was not significant ($p = .75$), we do not discuss this finding further (see Supplemental materials for a break-down of the two-way interaction).

(May vs Corbyn vs unlabeled) as factors. Participants were randomly allocated to one of the source attribution conditions. Six hundred thirty-four British participants were recruited through the online platform Prolific. Two participants were excluded because they skipped all items, leaving 632 participants (490 women, 140 men, 1 other, 1 who preferred not to say). The mean age of the sample was 29.50 years (SD = 6.66). Data were analyzed only after data collection was completed. A sensitivity analysis showed that our sample was sufficient to detect small effects of f ≥ 0.11 with a power of 0.80.

5.1.2. Materials and procedure

Participants were told that they would be asked to rate the extent of their agreement or disagreement with each of 10 aphorisms "from influential British politicians." These ratings were made on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The aphorisms came from the 40-item Portrait Value Questionnaire (PVQ; Schwartz et al., 2001), which measures the importance people attach to values such as equality, security, or helpfulness as guiding principles in their life. We selected 10 aphorisms relating to benevolence, security, self-direction, and universalism, because these are the values that have consistently been found to be most important across 60 countries (Schwartz & Bardi, 2001). Despite this universal hierarchy of values, previous research found that values are linked to political attitudes. For example, center-right voters score higher on security, while center-left voters score higher on universalism and benevolence (Caprara, Schwartz, Capanna, Vecchione, & Barbaranelli, 2006). Effect sizes were small, however ($-0.20 < r < 0.28$ with the largest effect found for universalism). Translating the largest effect size to Cohen's d and then to a distribution overlap estimate (Inman & Bradley, 1989), still 77% of people on different ends of the political left-right continuum nonetheless agree with the importance of these values. It is therefore plausible for the same value assertions to be presented as quotes from Corbyn in one condition and from May in the other condition.

Some of the aphorisms were slightly adapted to make them sound more like a quote. Example aphorisms include "It is important that every person in the world is treated equally," "It is better to be loyal to our friends," and "We should avoid anything that might endanger our safety" (see Supplemental materials for a list of all aphorisms). The aphorisms were presented as quotes from Theresa May, Jeremy Corbyn, or were unlabeled (control condition). To avoid participants responding in an unthinking fashion, the aphorisms were presented in an alternating order with respect to their ostensible political party (see Supplemental materials). The ten aphorisms were divided into two sets of five: The first set consisted of the odd-numbered aphorisms, whereas the second set consisted of all the even-numbered aphorisms. Because the initial order of the aphorisms was randomized, this division is also random. Participants saw only one of these two sets, because otherwise they would have seen the same aphorism twice, once attributed to Corbyn, once to May. This design enabled an internal replication of our findings. Thus, the design was the same design as the one used in Study 3, except that here the aphorisms were not actual quotes.

Each of the five moderators was measured as follows. Trust in the leadership of one's own party was measured with "How much do you trust politicians of your party on average?" and "How much confidence do you have in politicians of your party on average?" (α = 0.87). Being afraid of reproach from ingroup members for dissidence was measured with "Do you believe that supporters of your party would judge you harshly for disagreeing with them?" and "Do you fear reproach from supporters of your party for dissenting with them?" (α = 0.60). Feeling discomfort about disagreeing was measured with "Do you feel discomfort if you disagree with the official line of the party you are supporting?" and "Do you feel stressed if you disagree with the official line of the party you are supporting?" (α = 0.78). The tendency to turn to authorities when uncertain about one's beliefs was measured with "Does listening to leading politicians from your party make you feel more certain about your beliefs?" and "Do you feel uncertain about your own view on political issues without having listened to leading politicians of your party?" (α = 0.15). Because of the low internal consistency of this latter measure, we used each item as a separate moderator.[4] Attitude strength toward British politics was measured with the 4-item scale of Skitka, Bauman, and Sargis (2005). Example items include "How important is British politics to you personally?" (attitude importance), and "How much are your feelings about British politics connected to your core moral beliefs or convictions?" (moral conviction; α = 0.90). All items were measured on a 7-point scale ranging from 1 (not at all) to 7 (a great deal/very much).

Finally, we measured political ideology with adapted versions of the four items used in Study 3 (α = 0.89), and also asked whether participants had spoken to someone about this questionnaire who had already completed it, and how convinced they were that the aphorisms actually came from May and Corbyn (1: a great deal to 5: none at all). Because only three participants reported that they had spoken to someone who had already completed the survey (625 answered no, 1 unsure, and 3 missing), this item was not considered further (the pattern of results reported in Table 3 remained the same when only participants who answered no were included, see Table S4). The data were collected together with data for an unrelated study. In this other study, which preceded Study 4, participants described children and then completed measures of goals, values, and prosocial behavior.

Table 3
Summary of regression analysis with consensual aphorisms.

	Aphorisms set 1		Aphorisms set 2	
Predictor variable	*B*	*SE B*	*B*	*SE B*
SA (May vs no attribution)	−0.25**	0.08	−0.03	0.08
SA (Corbyn vs no attribution)	−0.18*	0.08	−0.32***	0.08
Political ideology (PI)	−0.09	0.06	0.03	0.06
SA (May vs no attribution) × PI	0.07	0.09	0.14	0.09
SA (Corbyn vs no attribution) × PI	−0.38***	0.10	−0.49***	0.09
Adjusted R^2		0.08***		0.11***

Note. SA: Source attribution of quotes (dummy coded), PI: political ideology.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

5.2. Results

We first tested separately, for each of the three conditions, whether the aphorisms were consensually endorsed. As expected, participants agreed significantly with all aphorisms, regardless of political ideology: In 30 one-sample t-tests (one per aphorism in each condition) comparing mean agreement with the scale mid-point of 4, all results were significant (all $ps < .001$, Ms = 4.69–6.21).

To test whether the effect observed in previous studies would replicate, we then examined responses to both sets of aphorisms in two pairs of regression analyses, with the dependent variable being the mean agreement to each set of statements. The predictor variables were source attribution (categorical) and political ideology (continuous, lower values indicating greater support for the Labour Party). Table 3 shows some interesting main effects: Participants agreed more on average with the aphorisms when they were unattributed than when they were labeled as coming from either May or Corbyn, as reflected in the negative coefficients for the source attribution main effects. More relevant to our predictions, the interactions of condition with political

[4] Re-assessing these two items after data collection had been completed led us to question whether they measured the intended construct of turning to authorities when uncertain about one's beliefs. We therefore report the results for these moderators in the Supplemental Materials only (all interactions with the two items were non-significant).

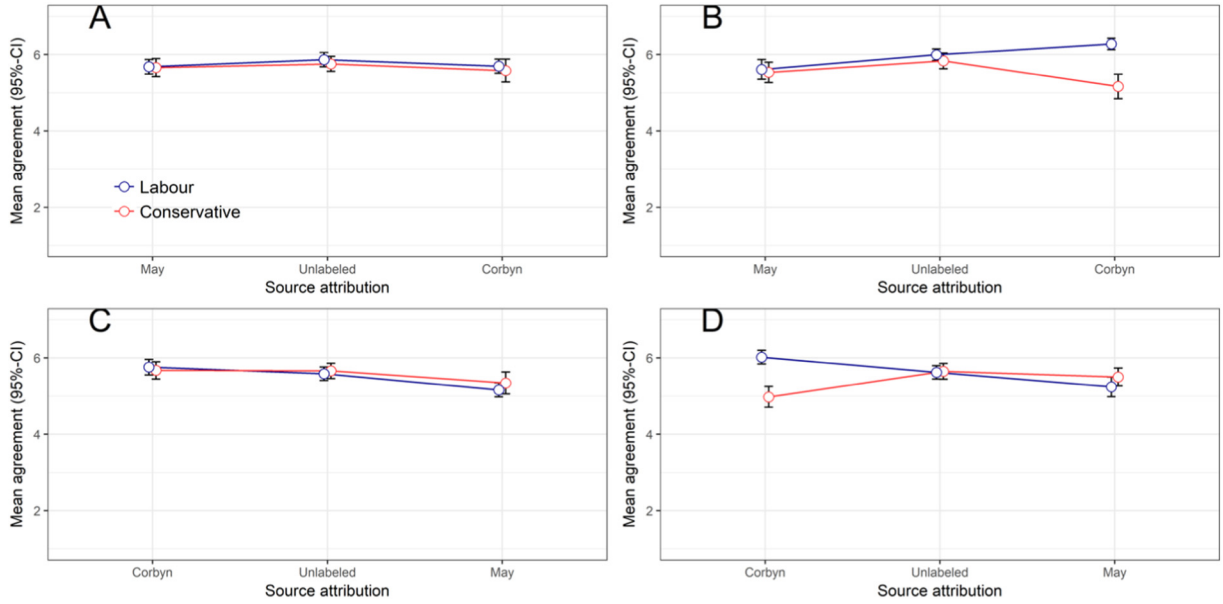

Fig. 4. Mean agreement with aphorisms, depending on source attribution, political ideology, and strength of participants' support for their own party. Panels A and C shows results for weaker supporters; panels B and D shows results for stronger supporters. Panels A and B show the results for the first set of five aphorisms, panels C and D for the second set of five aphorisms (internal replication; Study 4).
Note. The response scale ranged from 1 (strongly disagree) to 7 (strongly agree).

ideology revealed that Labour supporters agreed more with both sets of aphorisms, and Conservative supporters agreed with them less, when they were labeled as coming from Corbyn than when they were unlabeled. However, contrary to expectations, this effect was not found when the aphorisms were labeled as coming from May. Nonetheless, a comparison of agreement with aphorisms labeled as coming from May with agreement with the same aphorisms labeled as coming from Corbyn again revealed the expected two-way interaction. For Set 1, the interaction between source attribution and political ideology was significant ($B = -0.44$, $SE = 0.10$, $p < .001$), as was the corresponding interaction for Set 2 ($B = -0.63$, $SE = 0.10$, $p < .001$), indicating that Labour-supporting respondents agreed more when aphorisms were labeled as quotes from Corbyn and less when labeled as quotes from May (and vice versa for Conservative-supporting respondents).

To illustrate this effect graphically, Conservative- supporting respondents and Labour-supporting respondents were divided into weaker and stronger supporters of their political party and strength of agreement with the aphorisms was plotted as a function of source attribution (see Fig. 4). Panels B and D clearly show that the effect was driven by stronger supporters.

In a next step, we repeated the regression analyses four times, one per moderator. Each moderator was included as a third (continuous) predictor. All but one of the eight three-way interactions were non-significant, showing that trust in leadership, fear of reproach from ingroup, discomfort about disagreeing with ingroup, and attitude strength all failed to moderate the effect. The one significant three-way interaction involved political ideology, discomfort about disagreeing and extent of agreement with the second set of aphorisms ($B = -0.12$, $SE = 0.06$, $p = .03$). However, because this was the only significant effect out of ten three-way interactions, and because it did not replicate with the first set of aphorisms ($B = 0.02$, $SE = 0.06$, $p = .71$), we regard this as a chance result.

Finally, we tested whether the degree of conviction that the aphorisms actually came from May and Corbyn exerted a moderating effect. Here we found a significant three-way interaction for the first set of items ($B = -0.30$, $SE = 0.09$, $p = .001$). Further analyses revealed that the two-way interaction reported in Table 3 was weakest for participants who exhibited more doubt that the aphorisms were from Corbyn or May (+1SD above the mean or greater) ($B = -0.15$, $SE = 0.23$, $p = .53$), moderate for participants who were within one standard deviation of the mean, ($B = -0.37$, $SE = 0.11$, $p = .001$), and strongest for those who least doubted the ostensible origin of the aphorisms (−1SD below the mean or less), ($B = -1.07$, $SE = 0.29$, $p < .001$). However, this three-way interaction was not significant for the second set of items ($B = -0.08$, $SE = 0.09$, $p = .39$). Thus, there was no consistent evidence regarding the moderating effect of self-rated degree of conviction about the source.

5.3. Discussion

In Study 4, we found that supporters of the Labour party agreed more with the aphorisms when they were attributed to Corbyn, the leader of their own party, than when they were attributed to the leader of the Conservative party, with the reverse pattern of effects being observed among supporters of the Conservative party. However, when the source attribution factor involved a comparison with the control group, this effect was only found for aphorisms labeled as quotes from Corbyn. We suggest that this finding arose because Corbyn is a more polarizing political leader than May in the UK. Corbyn's leadership has focused on relatively radical new initiatives to increase governmental social and infrastructural investment (e.g., eliminating university tuition fees; higher taxes on the wealthy; nationalizing the railways), whereas May's leadership is focused on attempting to reconcile between different wings of her own party and on reaching an agreement with the European Union. Our findings suggest that Corbyn's alleged views attract greater endorsement from supporters and greater rejection from opponents than when the same views are unattributed. None of the four possible moderators we considered was found to have a significant moderating influence. However, there was some evidence, albeit not consistent for the two sets of aphorisms, that this effect was weaker among participants who more strongly doubted whether the aphorisms actually came from Corbyn or May. This is not wholly surprising: If reliable, it probably reflects a tendency for experimental effects to be weaker among participants who doubt the cover story.

6. General discussion

The aim of the present research was to test whether agreement with

consensually endorsed, non-divisive aphorisms is reduced when they are thought to originate from a rival group, even when the aphorisms in question originate from one's own group. In all four studies, we found that aphorisms presented as originating from the ingroup elicited greater agreement than the same aphorisms presented without attribution (except for aphorisms attributed to May in Study 4); likewise, the same aphorisms presented as originating from the outgroup elicited less agreement than when they were presented without attribution. These effects occurred across atheists and Christians in Studies 1 and 2 and across respondents with right-leaning and left-leaning political views in Studies 3 and 4. This finding that "both sides" are biased is in line with recent findings (Ditto et al., 2017; Frimer et al., 2017; Proulx & Brandt, 2017). For example, conservatives and liberals are equally motivated to reject attitude-inconsistent scientific findings (Washburn & Skitka, 2017).

It is worth noting that these effects occurred independently of whether the information about the source of the aphorisms was correct or incorrect: The influence of actual statement content and source was overwhelmed by their ostensible source. Nonetheless, there was also a difference in the extent to which unattributed aphorisms were endorsed by atheists and Christians (Study 2) or by Democrats and Republicans (Study 3), such that participants sometimes agreed more with aphorisms that actually originated from their ingroup than with aphorisms originating from an outgroup. In Study 2, Christians may have been more familiar than atheists with the style in which biblical aphorisms and quotes from ancient Greek philosophers are written, and this might have increased their tendency to endorse such aphorisms through a mere-exposure effect (Zajonc, 1968). In Study 3, some aphorisms did contain references to nationalism and patriotism, which may be why Republicans, who tend to be more nationalistic than Democrats (e.g., Haidt & Graham, 2007), endorsed the aphorisms to a greater extent than did Democrats in the control condition. Nonetheless, although the content of the aphorisms exerted a small influence on agreement in some groups, this effect was much smaller than the consistent effect of source attribution. This suggests that we ascribe different meaning to a statement as a function of its source (cf. Kunda, 1990), or that its social meaning was differently inferred (Cohen, 2003).

In Studies 3 and 4, this source attribution effect was significantly moderated by strength of political preference: The effect was more evident among stronger supporters than weaker ones. However, Studies 1 and 3 revealed that the effect was not moderated by spontaneous versus deliberative processing (i.e., being encouraged and being given the opportunity to engage in deeper thought about the aphorisms). The fact that the findings observed in Studies 1 and 3 were not moderated by thoughtful elaboration suggests that the effect of ingroup or outgroup sources was not dependent on the degree of thought about the assertions. Thinking about the assertions more does not attenuate or increase the role of the source, perhaps because sources in general can be a simple cue to agreement under low elaboration, while being a biasing factor under high elaboration (e.g., Petty & Cacioppo, 1986).

Educational attainment moderated the source attribution effect in Study 1, but not in Study 3. This difference may have arisen because the political divide just before the 2016 US election, when data for Study 3 were collected, was arguably greater than the religious divide in spring 2014, when the data for Study 1 were collected. These findings are reminiscent of research on the polarization of views regarding scientific controversies, such as climate change. For example, Kahan and colleagues found that numerical ability helped people to interpret scientific results more correctly when the topic of the research (skin rash treatment) was not associated with cultural values or group identity, but not when the research topic (gun control) was associated with cultural values and group identity (Kahan, Peters, Dawson, & Slovic, 2017). Indeed, polarization in the latter context was *greater* among those with higher numeracy scores. Similar to theories affirming the cognitive centrality of social identity (Tajfel & Turner, 1986) and self-categorization theory (Turner et al., 1987), Kahan and colleagues explain their results in terms of 'identity protective cognition,' which they describe as "a psychic self-defense mechanism that steers individuals away from beliefs that could alienate them from others on whose support they depend in myriad domains of everyday life" (p. 56f). The differences between Kahan and colleagues' findings and those of our Study 1 therefore raise the possibility that education may play different roles in moderating reactions to information that is inherently polarizing, as opposed to reactions to information that is only polarizing by virtue of its source. Educated participants in the Kahan et al. study used their "quantitative-reasoning capacity selectively to confirm their interpretation of the data" (Kahan et al., 2017, p. 54) when assessing polarizing statements. By contrast, when assessing consensual aphorisms that were attributed to a polarizing source, such as the Bible, more educated atheists in our Study 1 appear to have focused on the content of the aphorism, rather than its source. However, it is worth repeating that the moderating effect of education was not observed in Study 3, and also worth bearing in mind that 'numerical ability' and 'educational attainment' are constructs that may not be strongly correlated.

The present findings show that something akin to an identity protection process applies even when people are asked about their agreement with uncontroversial aphorisms. Indeed, 71% of atheists and Christians responded *the same way* to the unlabeled aphorisms (Study 2), as did 83% of Democrats and Republicans (Study 3), and 94% of the Conservative and Labour supporters (Study 4).[5] By contrast, when the aphorisms were accompanied by a source attribution, the extent of similarity in responding decreased to 47% for atheists and Christians, 55% for Democrats and Republicans, and 84% for supporters of the Conservative and Labour parties. Clearly, agreement across religious and political ideological groups *can* occur, but it has a far better chance of doing so when group identity is not engaged. Unfortunately, identity protective cognition in this context is particularly pernicious, because it seems unlikely that members of different ideological groups will agree on controversial issues when they cannot even agree on relatively consensual, value-affirming aphorisms. Finding common ground in political discourse will be difficult to achieve unless we can identify ways in which group ideologies can be disentangled from dialogue, a challenge that several investigators are beginning to tackle (e.g., http://humilityandconviction.uconn.edu).

Open practice

The studies reported in this article earned an Open Data badge for transparent practices. Data for the experiments are available at https://osf.io/csfmd/.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jesp.2018.07.002.

[5] This analysis applies a 'similarity perspective' (Hanel, 2016; Hanel et al., 2018) to the data. Specifically, these percentages were obtained by transforming Cohen's *d* into the Overlapping Coefficient (OVL; Inman & Bradley, 1989). The OVL allows one to draw conclusions about the distribution of the whole data, not just the means, by estimating the percentage of overlap between two normal distributions. In other words, the OVL helps to assess degree of similarity.

References

Alford, J. R., Hatemi, P. K., Hibbing, J. R., Martin, N. G., & Eaves, L. J. (2011). The politics of mate choice. *Journal of Politics, 73*(2), 362–379. http://dx.doi.org/10.1017/S0022381611000016.

Asch, S. E. (1948). The doctrine of suggestion, prestige and imitation in social psychology. *Psychological Review, 55*(5), 250. http://dx.doi.org/10.1037/h0057270.

Balliet, D., Wu, J., & De Dreu, C. K. W. (2014). Ingroup favoritism in cooperation: A meta-analysis. *Psychological Bulletin, 140*(6), 1556–1581. http://dx.doi.org/10.1037/a0037737.

Caprara, G. V., Schwartz, S. H., Capanna, C., Vecchione, M., & Barbaranelli, C. (2006). Personality and politics: Values, traits, and political choice. *Political Psychology, 27*(1), 1–28. http://dx.doi.org/10.1111/j.1467-9221.2006.00447.x.

Cohen, G. L. (2003). Party over policy: The dominating impact of group influence on political beliefs. *Journal of Personality and Social Psychology, 85*(5), 808–822. http://dx.doi.org/10.1037/0022-3514.85.5.808.

Dawkins, R. (2006). *The God delusion.* New York, NY: Houghton Mifflin.

Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *The Journal of Applied Psychology, 87*(4), 611–628.

Ditto, P. H., Liu, B., Clark, C., Wojcik, S. P., Chen, E., Grady, R., & Zinger, J. (2017). *At least bias is bipartisan: A meta-analytic comparison of partisan bias in liberals and conservatives (SSRN Scholarly Paper No. ID 2952510).* Rochester, NY: Social Science Research Network. Retrieved from https://papers.ssrn.com/abstract=2952510.

Donate, A. P. G., Marques, L. M., Lapenta, O. M., Asthana, M. K., Amodio, D., & Boggio, P. S. (2017). Ostracism via virtual chat room—Effects on basic needs, anger and pain. *PLoS One, 12*(9), e0184215. http://dx.doi.org/10.1371/journal.pone.0184215.

Edgell, P., Gerteis, J., & Hartmann, D. (2006). Atheists as "other": Moral boundaries and cultural membership in American society. *American Sociological Review, 71*(2), 211–234. http://dx.doi.org/10.1177/000312240607100203.

Faraji-Rad, A., Samuelsen, B. M., & Warlop, L. (2015). On the persuasiveness of similar others: The role of mentalizing and the feeling of certainty. *Journal of Consumer Research, 42*(3), 458–471. http://dx.doi.org/10.1093/jcr/ucv032.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*(4), 1149–1160. http://dx.doi.org/10.3758/BRM.41.4.1149.

Frimer, J. A., Skitka, L. J., & Motyl, M. (2017). Liberals and conservatives are similarly motivated to avoid exposure to one another's opinions. *Journal of Experimental Social Psychology, 72*, 1–12. http://dx.doi.org/10.1016/j.jesp.2017.04.003.

Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research, 20*, 98–116.

Hanel, P. H. P. (2016). *Human values and value instantiations: Similarities and differences between countries and their implications* (PhD thesis) Cardiff: Cardiff University. Retrieved from http://orca.cf.ac.uk/96711/.

Hanel, P. H. P., Maio, G. R., & Manstead, A. S. R. (2018). A new way to look at the data: Similarities between groups of people are large and important. *Journal of Personality and Social Psychology* (accepted).

Hanel, P. H. P., & Vione, K. C. (2016). Do student samples provide an accurate estimate of the general public? *PLoS One, 11*(12), e0168354. http://dx.doi.org/10.1371/journal.pone.0168354.

Harris, S. (2006). *Letter to a Christian nation.* New York: Knopf.

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences, 33*(2–3), 61–83. http://dx.doi.org/10.1017/S0140525X0999152X.

Hofmann, W., Wisneski, D. C., Brandt, M. J., & Skitka, L. J. (2014). Morality in everyday life. *Science, 345*(6202), 1340–1343. http://dx.doi.org/10.1126/science.1251560.

Horcajo, J., Petty, R. E., & Briñol, P. (2010). The effects of majority versus minority source status on persuasion: A self-validation analysis. *Journal of Personality and Social Psychology, 99*(3), 498–512. http://dx.doi.org/10.1037/a0018626.

Hornsey, M. J., & Esposo, S. (2009). Resistance to group criticism and recommendations for change: Lessons from the intergroup sensitivity effect. *Social and Personality Psychology Compass, 3*(3), 275–291. http://dx.doi.org/10.1111/j.1751-9004.2009.00178.x.

Inman, H. F., & Bradley, E. L. (1989). The overlapping coefficient as a measure of agreement between probability distributions and point estimation of the overlap of two normal densities. *Communications in Statistics - Theory and Methods, 18*(10), 3851–3874. http://dx.doi.org/10.1080/03610928908830127.

Iyengar, S., & Krupenkin, M. (2018). The strengthening of partisan affect. *Political Psychology, 39*, 201–218. http://dx.doi.org/10.1111/pops.12487.

Iyengar, S., Sood, G., & Lelkes, Y. (2012). Affect, not ideology: A social identity perspective on polarization. *Public Opinion Quarterly, 76*(3), 405–431. http://dx.doi.org/10.1093/poq/nfs038.

Iyer, R., Koleva, S., Graham, J., Ditto, P., & Haidt, J. (2012). Understanding libertarian morality: The psychological dispositions of self-identified libertarians. *PLoS One, 7*(8), e42366. http://dx.doi.org/10.1371/journal.pone.0042366.

Kahan, D. M., Peters, E., Dawson, E. C., & Slovic, P. (2017). Motivated numeracy and enlightened self-government. *Behavioural Public Policy, 1*(1), 54–86. http://dx.doi.org/10.1017/bpp.2016.2.

Knischek, S. (2009). *Lebensweisheiten berühmter Philosophen [Worldly wisdoms of famous philosophers]* (8th ed.). Hannover: Humboldt.

Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin, 108*(3), 480–498. http://dx.doi.org/10.1037/0033-2909.108.3.480.

Lawrence, M. A. (2015). ez: Easy analysis and visualization of factorial experiments (version 4.3). Retrieved from https://CRAN.R-project.org/package=ez.

Leach, C. W., van Zomeren, M., Zebel, S., W, L., Pennekamp, S. F., Doosje, B., ... Spears, R. (2008). Group-level self-definition and self-investment: A hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology, 95*(1), 144–165. http://dx.doi.org/10.1037/0022-3514.95.1.144.

Lipka, M. (2014). July 16. *U.S. evangelical Christians are chilly toward atheists – And the feeling is mutual.* Retrieved from http://www.pewresearch.org/fact-tank/2014/07/16/u-s-evangelical-christians-are-chilly-toward-atheists-and-the-feeling-is-mutual/.

Lorge, I., & Curtiss, C. C. (1936). Prestige, suggestion, and attitudes. *The Journal of Social Psychology, 7*(4), 386–402. http://dx.doi.org/10.1080/00224545.1936.9919891.

Mac Donald, A. P. (1970). Revised scale for ambiguity tolerance: Reliability and validity. *Psychological Reports, 26*(3), 791–798. http://dx.doi.org/10.2466/pr0.1970.26.3.791.

Mackie, D. M., Gastardo-Conaco, M. C., & Skelly, J. J. (1992). Knowledge of the advocated position and the processing of in-group and out-group persuasive messages. *Personality and Social Psychology Bulletin, 18*(2), 145–151. http://dx.doi.org/10.1177/0146167292182005.

Mackie, D. M., Worth, L. T., & Asuncion, A. G. (1990). Processing of persuasive in-group messages. *Journal of Personality and Social Psychology, 58*(5), 812–822. http://dx.doi.org/10.1037/0022-3514.58.5.812.

Maltby, J., & Lewis, C. A. (1997). The reliability and validity of a short scale of attitude towards Christianity among USA, English, Republic of Ireland, and Northern Ireland adults. *Personality and Individual Differences, 22*, 649–654.

Maoz, I., Ward, A., Katz, M., & Ross, L. (2002). Reactive devaluation of an "Israeli" vs. "Palestinian" peace proposal. *Journal of Conflict Resolution*. http://dx.doi.org/10.1177/0022002702046004003.

McGarty, C., Haslam, S. A., Hutchinson, K. J., & Turner, J. C. (1994). The effects of salient group memberships on persuasion. *Small Group Research, 25*(2), 267–293. http://dx.doi.org/10.1177/1046496494252007.

Mols, F. (2012). What makes a frame persuasive? Lessons from social identity theory. *Evidence & Policy: A Journal of Research, Debate and Practice, 8*(3), 329–345. http://dx.doi.org/10.1332/174426412X654059.

Norton, M. I., & Ariely, D. (2011). Building a better America — One wealth quintile at a time. *Perspectives on Psychological Science, 6*(1), 9–12. http://dx.doi.org/10.1177/1745691610393524.

Olejnik, S., & Algina, J. (2003). Generalized eta and omega squared statistics: Measures of effect size for some common research designs. *Psychological Methods, 8*(4), 434–447. http://dx.doi.org/10.1037/1082-989X.8.4.434.

Open Science Collaboration. (2015). Estimating the reproducibility of psychological. *Science, 349*(6251), aac4716. http://dx.doi.org/10.1126/science.aac4716.

Pew Research Center (2016). A wider ideological gap between more and less educated adults. Retrieved from http://www.people-press.org/2016/04/26/a-wider-ideological-gap-between-more-and-less-educated-adults/.

Petty, R. E., & Cacioppo, J. T. (1986). The Elaboration Likelihood Model of persuasion. In L. Berkowitz (Vol. Ed.), *Advances in Experimental Social Psychology: 19*, (pp. 123–205). New York, NY: Academic Press.

Platow, M. J., van Knippenberg, D., Haslam, S. A., van Knippenberg, B., & Spears, R. (2006). A special gift we bestow on you for being representative of us: Considering leader charisma from a self-categorization perspective. *British Journal of Social Psychology, 45*(2), 303–320. http://dx.doi.org/10.1348/014466605X41986.

Proulx, T., & Brandt, M. J. (2017). Beyond threat and uncertainty: The underpinnings of conservatism. *Social Cognition, 35*(4), 313–323. http://dx.doi.org/10.1521/soco.2017.35.4.313.

Richard, F. D., Bond, C. F., Jr., & Stokes-Zoota, J. J. (2003). One hundred years of social psychology quantitatively described. *Review of General Psychology, 7*(4), 331–363. http://dx.doi.org/10.1037/1089-2680.7.4.331.

Rosenfeld, M. J., Reuben, T. J., & Maja Falcon (2015). *How couples meet and stay together, waves 1, 2, and 3: Public version 3.04, plus wave 4 supplement version 1.02 and wave 5 supplement version 1.0 [computer files].* Stanford, CA: Stanford University Libraries.

Scheufele, D. A., Shanahan, J., & Kim, S.-H. (2002). Who cares about local politics? Media influences on local political involvement, issue awareness, and attitude strength. *Journalism and Mass Communication Quarterly, 79*(2), 427–444. http://dx.doi.org/10.1177/107769900207900211.

Schwartz, S. H., & Bardi, A. (2001). Value hierarchies across cultures taking a similarities perspective. *Journal of Cross-Cultural Psychology, 32*(3), 268–290. http://dx.doi.org/10.1177/0022022101032003002.

Schwartz, S. H., Melech, G., Lehmann, A., Burgess, S., Harris, M., & Owens, V. (2001). Extending the cross-cultural validity of the theory of basic human values with a different method of measurement. *Journal of Cross-Cultural Psychology, 32*(5), 519–542. http://dx.doi.org/10.1177/0022022101032005001.

Skitka, L. J., Bauman, C. W., & Sargis, E. G. (2005). Moral conviction: Another contributor to attitude strength or something more? *Journal of Personality and Social Psychology, 88*(6), 895–917. http://dx.doi.org/10.1037/0022-3514.88.6.895.

Steffens, N. K., Mols, F., Haslam, S., & Okimoto, T. (2016). True to what we stand for: Championing collective interests as a path to authentic leadership. *The Leadership Quarterly, 27*. http://dx.doi.org/10.1016/j.leaqua.2016.04.004.

Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel, & W. G. Austin (Eds.). *Psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson-Hall.

Tamarin, G. R. (1966). The influence of ethnic and religious prejudice on moral judgment. *New Outlook, 9*(1), 49–58.

Turner, J. C. (1982). Toward a cognitive redefinition of the social group. In H. Tajfel (Ed.). *Social identity and intergroup behavior* (pp. 15–40). Cambridge: Cambridge University Press.

Turner, J. C. (1985). Social categorization and the self-concept: A social cognitive theory of group behavior. In J. E. Lawler (Ed.). *Advances in group processes* (pp. 77–121). Greenwich, CT: JAI Press.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987).

Rediscovering the social group: A self-categorization theory. New York: Basil Blackwell.
Washburn, A. N., & Skitka, L. J. (2017). Science denial across the political divide: Liberals and conservatives are similarly motivated to deny attitude-inconsistent science. *Social Psychological and Personality Science*1948550617731500. http://dx.doi.org/10.1177/1948550617731500.
Westfall, J., Boven, L. V., Chambers, J. R., & Judd, C. M. (2015). Perceiving political polarization in the United States: Party identity strength and attitude extremity exacerbate the perceived partisan divide. *Perspectives on Psychological Science, 10*(2), 145–158. http://dx.doi.org/10.1177/1745691615569849.
Wyer, N. A. (2010). Selective self-categorization: Meaningful categorization and the in-group persuasion effect. *The Journal of Social Psychology, 150*(5), 452–470. http://dx.doi.org/10.1080/00224540903365521.
Yuki, M., Maddux, W. W., Brewer, M. B., & Takemura, K. (2005). Cross-cultural differences in relationship-and group-based trust. *Personality and Social Psychology Bulletin, 31*(1), 48–62. http://dx.doi.org/10.1177/0146167204271305.
Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology, 9*, 1–27.